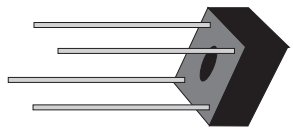
BR1005-BR1010

SINGLE-PHASE SILICON BRIDGE RECTIFIER



VOLTAGE RANGE: 50 - 1000V
CURRENT: 10 A

Features

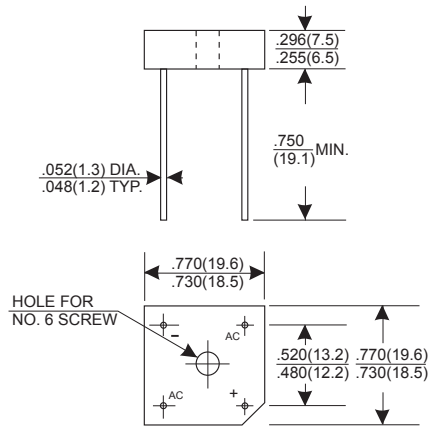
- Low cost
- Low forward voltage
- Low leakage current

Mechanical Data

- Case: Molded plastic body
- Terminal: Lead solderable per MIL-STD-202E method 208C.
- Polarity: Polarity symbols molded on case
- Mounting position: Any
- Weight:0. 20ounce, 5.62 grams

RoHS COMPLIANT

BR-10



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	BR1005	BR1001	BR1002	BR1004	BR1006	BR1008	BR1010	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Tc=55°C	$I_{F(AV)}$	10							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	300							A
Current Squared Time at t < 8.3 ms.	I^2t	160							A^2S
Maximum Forward Voltage per Diode at I_F = 5 A	V_F	1.0							V
Maximum DC Reverse Current Ta = 25 °C	I_R	10							µA
at Rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	200							µA
Typical Thermal Resistance (Note 1)	RθJC	2.5							°C/W
Operating Junction Temperature Range	T_J	- 40 to + 150							°C
Storage Temperature Range	T_{STG}	- 40 to + 150							°C

Notes :

1. Thermal Resistance from junction to case with units mounted on a 3.2" x 3.2" x 0.12" (8.2cm.x 8.2cm.x 0.3cm.) Al.-Finned Plate.

RATING AND CHARACTERISTIC CURVES (BR1005 - BR1010)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

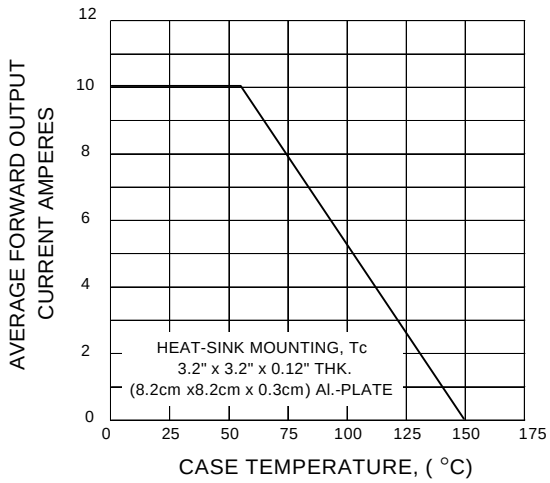


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

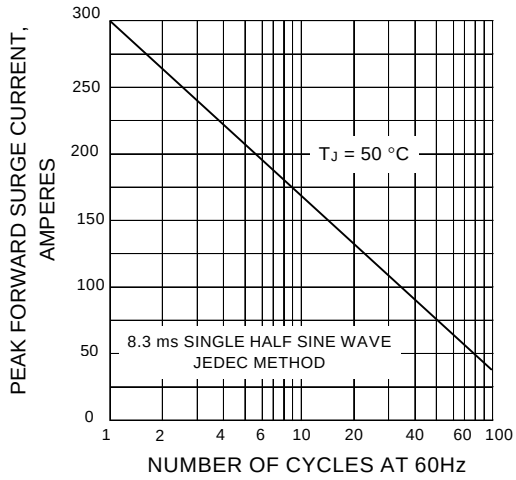


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

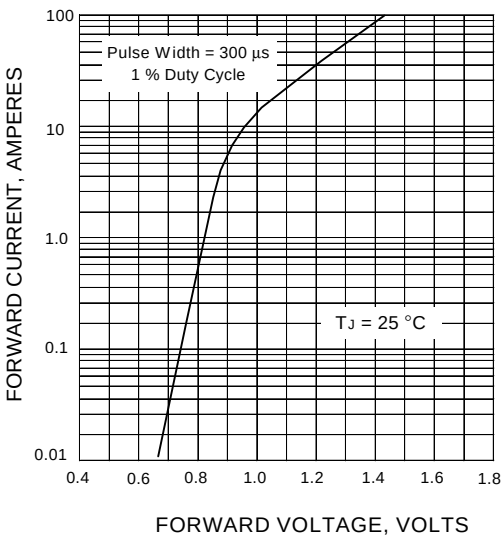


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE